AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATON

Please replace the paragraph beginning on page 2, line 17, with the following rewritten paragraph:

Last but not least, the chute must be designed to ~~minimise~~ minimize dust and noise pollution.

Please add the following paragraph immediately after line 32, page 4:

Further scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

Please add the following paragraph immediately after line 1, page 5:

The present invention will become more fully understood from the detailed description given hereinbelow and the accompanying drawings which are given by way of illustration only, and thus are not limitative of the present invention, and wherein:

Please delete line 2, page 5.

Please replace the paragraph beginning on page 5, line 12, with the following rewritten paragraph:

Bearing in mind that the primary purpose of a chute in a transfer point is to redirect the flow of a stream of materials, it has been ~~recognised~~ recognized that a chute has three distinct sections, each requiring a different but integrated design approach.

Please replace the paragraph beginning on page 5, line 15, with the following rewritten paragraph:

The upper or receiving section of the chute assembly has the principal role of receiving the bulk materials from a source or in-feed, which could be the outlet of a bunker or hopper but which, in most situations, is constituted by an in-feed belt running over a discharge pulley at the head end of the belt. The main chute body serves to ~~stabilise~~ stabilize the flow characteristics of the flowing stream of material and the lower or load-out section loads the receiving belt.

Please replace the paragraph beginning on page 5, line 26, with the following rewritten paragraph:

It is now generally accepted that dead boxes introduce a degree of unpredictability, which renders their use undesirable given the trend towards higher performance belt conveyor systems. These systems ~~utilise~~ utilize substantially higher belt speeds and narrower belts in order to achieve greater economic efficiency. It will be appreciated that the greater accuracy in design that is required in such high-performance belt conveying systems mitigates against the use of components that do not have predeterminable performance characteristics.

Please replace the paragraph beginning on page 7, line 11, with the following rewritten paragraph:

It will be appreciated that a bulk materials stream flowing across such variable impact ~~an~~ flow surfaces has resultant components of motion that cannot be predicted nor controlled with any degree of accuracy.

Please replace the paragraph beginning on page 7, line 14, with the following rewritten paragraph:

With these concerns in mind, it will be understood why more controllable mechanisms, such as impact plates, are preferred as a means of redirecting bulk materials

streams in transfer points forming part of high-performance conveyor belt systems. This is more often the case in belt systems that are used to transport bulk materials with [[a]] variable properties and where the system ~~utilises~~ utilizes moderate to high belt speeds (that may vary in operation) and angled transfer points.

Please replace the paragraph beginning on page 7, line 24, with the following rewritten paragraph:

The chute 100 comprises a bulk materials receiving section 112 and a load-out section 114 with a main chute body 113 in-between. A particulate bulk ~~materials~~ material is fed from an in-feed conveyor belt 122 through the chute 100. The bulk ~~materials~~ material is projected into the receiving section 112 in a curved trajectory over the head-end pulley 120 of the in-feed conveyor belt system.

Please replace the paragraph beginning on page 7, line 28, with the following rewritten paragraph:

The interior of the main chute body is provided with a number of trays 124 that define steps or ledges with free edges that project into the chute 100 facing the incoming materials flow. The majority of the trays 124 are provided with an upstanding wear lip 126 ~~lip~~ that extends along the free edge of the tray 124.

Please replace the paragraph beginning on page 8, line 1, with the following rewritten paragraph:

In effect, each of the trays 124 defines a step or ledge that serves as a mini dead box or rock box into which the bulk ~~materials~~ material is projected on commencement of material flow through the chute 100. The material accumulates rapidly within the rock boxes as material flow continues and the material is eventually compacted within the rock boxes to the extent that only the wear lips 126 (and then often only parts of the wear lips 126) are exposed to the bulk material flowing through the chute 100.

Please replace the paragraph beginning on page 8, line 7, with the following rewritten paragraph:

The free edges of the trays 124 are co-extensive with complex curves extending along imaginary lines connecting the free edges of the trays, so that the trays and the material accumulated therein are adapted, in use, to form a composite dead box with a surface that is exposed to the incoming material and that is curved along a curvature that intersects, at least partly, the path of the incoming and flowing material.

Please replace the paragraph beginning on page 8, line 14, with the following rewritten paragraph:

Due to the diminutive size of the rock boxes (which is determined by the proximity of the trays 124 to one another), the compacted bulk ~~materials~~ material forms a curved wear or impact surface. However, the shape and configuration of the impact surface is not determined by the accumulated bulk materials. Instead, the material that accumulates in each rock box tends to blend into the material accumulated in each of the rock boxes adjacent thereto. However, the rock boxes do not overfill. The flow of material through the chute 100 tends to remove any pieces of material that are not securely compacted within a rock box„ In this manner, the combination of trays 124 and accumulated material (that is constrained by the wear lips 126) form a curved liner of accumulated material within the chute 100. The shape and configuration of the impact surface of the resultant curved liner conforms relatively precisely to the outline and profile of the rock boxes, as determined by the shape of the trays124.

Please replace the paragraph beginning on page 9, line 1, with the following rewritten paragraph:

It will be appreciated that the lining material being the same as the transferred bulk materials, it provides an ideal wear surface 12.2 within the chute 100 that serves to ~~minimise~~ minimize wear on the chute components. In essence, the chute 100 constitutes a

material-on-material transfer chute in which the bulk material stream flows across a similar material wear liner.

Please replace the paragraph beginning on page 9, line 9, with the following rewritten paragraph:

To do this, the chute is notionally separated into its three main constituents - receiving section, main chute body and load-out section - which are then consciously designed, adapted and used, singly or in combination, to modify the vertical and horizontal components of motion of the stream of material all the way into, through and out of the chute in a manner that ~~maximises~~ maximizes the conveyor belt system ~~utilisation~~ utilization and that ~~minimises~~ minimizes environmental impact.

Please replace the paragraph beginning on page 9, line 15, with the following rewritten paragraph:

This drawing illustrates a chute 200 with a receiving section 212, a main chute body 213 and a load-out section 214 within which trays 224 with wear lips 226 are placed to define a wear surface 228. The free edges of the trays 224 and wear lips 226 are co-extensive with complex curves extending along imaginary lines connecting the free edges of the trays and lips, so that the trays and the material accumulated therein, in use, form a composite dead box with a surface that is exposed to the flowing stream of material

216 and that is curved along a curvature that intersects, at least partly, the path of the flowing stream of material 216.

Please replace the paragraph beginning on page 10, line 3, with the following rewritten paragraph:

In the main chute body 213 the flow characteristics of the flowing stream of material 216 are ~~stabilised~~ stabilized and the flowing stream of material 216 is ~~centralised~~ centralized within the main chute body 213. This is done by increasing the downward velocity of the flowing stream of material 216 by gravitational acceleration. In addition, the direction of motion of the flowing stream of material 216 is reversed once again. The reversal of direction of the flowing stream of material 216 has the advantage of altering the distribution of fines in the flowing stream of material 216 thereby to ensure that coarse material is deposited on finer material on the load-out section 214.

Please replace the paragraph beginning on page 10, line 10, with the following rewritten paragraph:

In the load-out section 214 the components of motion of the material stream are modified finally. The flowing stream of material 216 is decelerated with the aid of a gradually inclined wear surface 228.2 and ~~centralised~~ centralized further for symmetrical loading of the receiving belt 230.

Please replace the paragraph beginning on page 10, line 13, with the following rewritten paragraph:

The wear surface in the load-out section 214 is designed to deposit the flowing stream of material 216 symmetrically on the receiving belt 230 in a manner which ~~minimises~~ minimizes wear on the belting and conveyor structures. The load-out section 214 wear surface 2.28.2 is designed to accelerate (or decelerate) the flowing stream of material 216 to the extent that the velocity and direction of travel of the flowing stream of material 216 discharging from the load-out section 214 are matched with the belt travel direction and velocity to the greatest possible extent. This ~~minimises~~ minimizes abrasive wear of the belt and the belt power required to accelerate the materials to the belt velocity.

Please replace the paragraph beginning on page 10, line 21, with the following rewritten paragraph:

In addition, the components of motion of the flowing stream of material 216 normal to the belt plane at the point of discharge of the flowing stream of material 216 are kept as low as possible in order to ~~minimise~~ minimize impact damage of the belt and the belt support structure in the impact area.

Please replace the paragraph beginning on page 10, line 24, with the following rewritten paragraph:

By addressing this requirement adequately, it is also possible to ~~minimise~~ minimize spillage due to particle rebounding and to reduce dust and noise levels significantly.

Please replace the paragraph beginning on page 10, line 26, with the following rewritten paragraph:

The above-mentioned examples of the design possibilities offered by the use of the trays 224 and wear lips 226 are purely illustrative. Using the principles outlined above and understanding the design considerations involved and, in respect of each chute, the nature of the design problem to be overcome, it is possible to design a multiplicity of chutes, each purpose designed to ~~maximise~~ maximize conveying system ~~utilisation~~ utilization and to ~~minimise~~ minimize environmental impact.

Please replace the paragraph beginning on page 11, line 15, with the following rewritten paragraph:

In the receiving section 212, the vertices of the curves are remote from and face into the flowing stream of material 216 discharging off the in-feed belt 222. The trays 224 in the receiving section 212 face the head end pulley 220 and then curve outwardly to open towards the sides of the receiving section 212. In the main chute body 213, the trays 224

are reversed. The vertices of the curves defined by the trays 224 in the main chute body 213 face in the same direction as the belt discharge (the head end pulley 220) and then curve outwardly, opening towards the sides of the main chute body 213, so that they face into ~~the~~ and receive the flowing stream of material 216 discharging from the receiving section 212. In the example illustrated in Figure 3, the load-out section 214 simply continues the curvature of the main chute body 213 with the exception that the wear surface ~~228.3~~ 228.2 in the load-out section 214 is decurved to assist with the gravitational deceleration of the flowing stream of material 216 in the load-out section 214.

Please replace the paragraph beginning on page 11, line 26, with the following rewritten paragraph:

~~The~~ From the drawing it will be seen that the chute 200 itself is not curved and that the curvature of the wear surface is determined by the shape of the trays 224.

Please add the following paragraph immediately after line 16, page 12.

The invention being thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.